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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/964,229	09/25/2001	Vaughn R. Marian	2001P 16465 US	1823

7590

03/10/2003

Siemens Corporation
Intellectual Property Department
186 Wood Avenue South
Iselin, NJ 08830

EXAMINER

JUNG, WILLIAM C

ART UNIT	PAPER NUMBER
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3737

DATE MAILED: 03/10/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/964,229

Applicant(s)

MARIAN, VAUGHN R.

Examiner

William Jung

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 December 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) _____ is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 September 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-5, 11-15, 19-22, 25, and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Drost et al* (US 6,036,645) in view of *Merideth* (US 6,164,277).

Drost et al discloses of structure and method of intraoperative ultrasound probe for insertion into a patient where the probe includes handle section and the distal section with ultrasound transducer arrangement (figure 1, col. 1, line 66 – col. 2, line 43). Figure 1 shows that the probe is bendable at more than one location and at multiple angles. In addition, bendable section is made of metal shaft with memory-less characteristic. Merideth discloses of intraoperative ultrasound probe for insertion into a patient where the probe includes handle section and a transducer section. The section between the handle and the sensor section is adaptable or malleable or flexible or bendable with wire (section 24 of the element 12 in figure 1) and without wire (element 12 extending beyond section 34). The transducer section in Merideth can be replaced with ultrasound transducer as taught by Drost et al. Both, Drost and Merideth's probe consists of transducer housing, adjustable section capable of bending without wire. Drost et al also discloses of rotating the axis of transducer in respect to the handle axis to position the transducer housing within the cavity (col. 2, line 58 col. 3, line 18). Therefore, it would have been obvious to one having an ordinary skill in the art at the time the invention was

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made to apply the teachings of Drost et al to the teachings of Merideth to achieve the claimed invention in claims 1-5, 11-15, 19-22, 25, and 26.

3. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over *Drost et al* and *Merideth* as applied to claims 1 and 5 above, and further in view of *Bernstein et al* (US 5,163,421).

Drost et al and Merideth substantially disclose of all claimed invention in claim 6 where the material of Drost et al or Merideth's device is a nondescript metal. Bernstein discloses of flexible catheter where the metal shaft of the probe may be made of aluminum (col. 6, line 1-56). The motivation of Bernstein's catheter design was to provide flexible apparatus, which can be insertable in body, more specifically designed to use in vivo ultrasonic angioplasty. Bernstein, Drost et al, and Merideth, all share same motivation of designing flexible catheter, which can for insertion into a patient. Therefore, it would have been obvious to one having an ordinary skill at the time the invention was made to combine the teachings of Drost et al and Merideth to the teachings of Bernstein to apply the flexible or malleable metal in Drost et al and Merideth to the Bernstein's use of aluminum to achieve the claimed invention.

4. Claims 7, 8, 16, and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Drost et al* and *Merideth* as applied to claims 1, 11, and 19 above, and further in view of *Lemelson* (US 5,845,646) and *Ben-Haim* (US 6,083,170).

Drost et al and Merideth substantially disclose of all claimed invention in claims 7, 8, 16, and 23. Lemelson discloses of flexible catheter where the bending of the catheter is controlled by ball joint and tensioned wire (col. 13 line 8- 27). In addition, Ben-Haim has demonstrated that the mechanics of catheter tip manipulation can be interchanged from one design to another

(as described in previous action), therefore, it would have been obvious to one having an ordinary skill at the time the invention was made to apply the teachings of Drost et al and Merideth to the teachings of Lemelson's ball joint and tensioned wire and Ben-Haim's interchangeable catheter tip to achieve the claimed invention.

5. Claims 9, 10, 17, 18, and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Drost et al* and *Merideth* as applied to claims 1, 11, and 19 above, and further in view of *Flesh* (US 5,681,263) and *Ben-Haim*.

Drost et al and Merideth substantially disclose of all claimed invention in claims 9, 10, 17, 18, and 24. Flesch discloses of endoscopic ultrasound catheter/probe where the flexible portion of the probe is made of elastomers. In addition, the control of the probe's flexible portion has latch 34 with notched portion 36 connected to the transducer portion and the handle portion as shown in figures 1-3 (col. 3, line 7-28). Ben-Haim has demonstrated that the mechanics of catheter tip manipulation can be interchanged from one design to another, therefore, it would have been obvious to one having an ordinary skill at the time the invention was made to apply the teachings of Drost et al and Merideth to the teachings of Flesch and Ben-Haim to achieve the claimed invention.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to William Jung whose telephone number is 703-605-4364. The examiner can normally be reached on Mon-Fri 8:30 AM to 5 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marvin Lateef can be reached on 703-305-3256. The fax phone numbers for the organization where this application or proceeding is assigned are 703-308-0758 for regular communications and 703-308-0758 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1148.

William Jung
Examiner
Art Unit 3737

WCT
February 28, 2003


Marvin M. Lateef
Supervisory Patent Examiner
Group 3700